

CLAIMS

1. Shelf assembly (3) for a vehicle comprising a shelf (4, 48) adapted to be mounted, in a movable manner, onto two tracks (5, 46) between, on one hand, a deployed position in which it covers the area located between the front edge (6a) of the hood (6) of the rear boot (1) of the vehicle and the backrest (7a) of the seat (7) delimiting the boot (1), and on the other hand, a retracted position in which it uncovers this area, each track (5, 46) being fixed to a support element (6, 45) of the vehicle and substantially extending along the longitudinal direction of the vehicle, driving means (8), which comprise a first part (10) fixed to the shelf (4, 48) and a second part (11) engaging the first part (10), being adapted to displace the shelf (4, 48) from one of its positions to another, wherein it comprises supporting means (9, 47) onto which the shelf (4, 48) is mounted in a movable manner, and which are adapted to be mounted in a movable manner onto the support element (6, 45), and in that the second part (11) of the driving means (8) is fixed to the supporting means (9, 47), the displacement of the shelf (4, 48) with respect to the supporting means (9, 47) compelling the displacement of the shelf (4, 48) from one of its positions to another and the displacement of the supporting means (9, 47) with respect to the support element (6, 45).

2. Shelf assembly (3) set forth in claim 1, wherein the supporting means (9, 47) comprise two sliders (9, 47) which are adapted to extend on either side of the vehicle and which are swivel mounted onto the support element (6, 45), the shelf (4, 48) being slide mounted along the sliders (9, 47) and both swivel and slide mounted along the tracks (5, 46).

3. Shelf assembly (3) set forth in claim 2, wherein each slider (9, 47) is telescopic.

4. Shelf assembly (3) set forth in claim 2 or 3, wherein the shelf (4, 48) comprises two guiding elements (13), each guiding element (13) being slide mounted along the corresponding slider (9, 47) and in a swivel and slide manner  
5 along the corresponding track (5, 46).

5. Shelf assembly (3) set forth in claim 4, wherein the driving means (8) comprise two racks (11) and two worms (10),  
10 each rack (11) being mounted along the corresponding slider (9, 47), and each worm (10) engaging the corresponding rack (11) and being rotary mounted onto the corresponding guiding element (13) about an axis of rotation (18) substantially extending along the longitudinal direction.

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6. Shelf assembly (3) set forth in claim 4 or 5, wherein each guiding element (13) has an inverted U-shaped structure and has a base wall (21), an external side wall (22) extending from the base wall (21) and placed near the side rim  
20 (23) of the support element (6, 45), and an internal side wall (24) extending from the base wall (20) and placed near the median part of the support element (6, 45).

7. Shelf assembly (3) set forth in any of claims 4 to 6,  
25 wherein each guiding element (13) comprises a roller (15) slide mounted along the corresponding slider (9, 47), and a cam pin (16) swivel and slide mounted along the corresponding track (5, 46).

30 8. Shelf assembly (3) set forth in claims 6 and 7, wherein, for each guiding element (13), the cam pin (16) transversally projects outwards with respect to the external side wall (22) in the direction of the side rim (23), and the roller (15) transversally projects outwards with respect to  
35 the internal side wall (24) into the housing (25) delimited by the U-shaped structure.

9. Shelf assembly (3) set forth in any of claims 6 to 8, wherein each slider (9, 47) is placed in the housing (25) created by the U-shaped structure and has a relative sliding movement in this housing (25).

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10. Shelf assembly (3) set forth in any of claims 1 to 9, wherein the support element (6) is created by the hood (6) of the rear boot (1), the tracks (5) and the supporting means (9) being configured so that the shelf (4) is adapted to being placed under the hood (6) when in its retracted position.

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11. Shelf assembly (3) set forth in claim 10 depending on claim 2, wherein each slider (9) is swivel mounted onto the hood (6) at its rear end (9b) and is adapted to extend along a substantially horizontal direction.

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12. Shelf assembly (3) set forth in claim 10 or 11 depending on claim 4, wherein when the guiding element (13) is close to the rear end (9b) of the slider (9), it is also close to the rear end (5b) of the track (5), and when it is close to the front end (9a) of the slider (9), it is also close to the front end (5a) of the track (5).

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13. Shelf assembly (3) set forth in any of claims 1 to 9, wherein the support element (45) is created by the frame (45) of the vehicle, the tracks (46) and the supporting means (47) being configured so that the shelf (48) is adapted to be arranged behind the backrest (7a) of the seat (7) delimiting the boot (1) when in its retracted position.

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14. Shelf assembly (3) set forth in claim 13 depending on claim 2, wherein each slider (47) is swivel mounted onto the frame (45) at its rear end (47b) and is adapted to extend along a substantially vertical direction.

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15. Shelf assembly (3) set forth in claim 13 or 14 depending on claim 4, wherein when the guiding element (13) is

close to the lower end (47b) of the slider (47), it is also close to the lower end (46b) of the track (46), and when it is close to the upper end (47a) of the slider (47), it is also close to the upper end (46a) of the track (46).

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16. Shelf assembly (3) set forth in any of claims 1 to 15, wherein the shelf (4) creates a substantially non-malleable unit.

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17. Shelf assembly (3) set forth in any of claims 1 to 15 depending on claim 4, wherein the shelf (48) comprises a substantially plane surface (51) defining the shelf and two torque arms (50) which support the guiding elements (13) and which are articulated with respect to the substantially plane surface (51) so that, when the shelf (48) is in its deployed position, the substantially plane surface (51) is in a substantially horizontal position and, when the shelf (48) is in its retracted position, the substantially plane surface (51) is in an inclined position with respect to the horizontal, preferably in a substantially vertical position.

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18. Shelf assembly (3) set forth in claim 17, wherein the substantially plane surface (51) is linked, in a swivel manner, to the torque arms (50) along an axis of rotation (52) extending along the transverse direction of the vehicle.

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19. Shelf assembly (3) set forth in claims 17 or 18, wherein a means for retracting (55) constantly urges the substantially plane surface (51) towards its substantially horizontal position.

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20. Shelf assembly (3) set forth in any of claims 17 to 19 depending on claim 13, wherein the articulating of the substantially plane surface (51) with respect to the torque arms (50) is controlled by the displacement of the torque arms (50) with respect to the frame (45).

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21. Shelf assembly (3) set forth in claim 20, wherein the substantially plane surface (51) comprises, on each side, at the front end of its side walls, a stub (53) which is swivel and slide mounted along a corresponding ramp (54) which  
5 is fixed to the frame (45) and which substantially extends along the vertical direction.